CLIMATE CHANGE AND ENVIRONMENT

SUSTAINABILITY REPORT

Approach

We are committed to driving energy efficiency initiatives in our communications network and facilities, while addressing broader issues across our business operations to minimise our environmental impact. Our environmental programme is governed by a robust management and reporting system which meets international standards.

Albern Murty - DiGi's Chief Operating Officer, shares our approach to Climate Change and Environment.

Climate Change and Environmental Highlights

2012

- Climate and environmental requirements formalised in the new Corporate Responsibility policy.
- Secured full Green Building Index Certification for TOC.
- Launched formal project to manage obsolete electrical and electronic equipment.
- Supported NGO CETDEM's study on Low Carbon Sustainable Development Options for Malaysia.

2013

- DiGi converted 23 off-grid sites to grid power, and downsized generators for another 23 sites to reduce dependency on diesel-fuel.
- Additional number of off-grid sites have been converted into hybrid-solar sites capitalising the use of renewable energy.
- Decommissioned over 100 sites due to from the infrastructure sharing initiative with Celcom and contributed to the reduction in energy usage within DiGi's network.

2014

- Optimised 41 generators and installed 7 hybrid-solar sites
- Awarded Top Performer "Excellence Award" at

Driving Energy Efficiency

In 2014, we consumed 247 GWh in our operations, a year on year increase of 2.3%. Our energy intensity continued to improve year on year to 35.12 MWh per RM revenue, but we were above our target of 34.8 MWh per RM revenue. This was due to the ongoing rollout of our 2G, 3G and LTE network.

We have mapped, estimated and tracked energy used from grid and generators for our network, buildings, fleet vehicles, flights, and rental vehicles. This has given us a deeper understanding of where are our most significant emissions is and target initiatives to reduce emissions while driving business goals.

Our Initiatives

Network Energy Efficiency

Over the past three years, our focus has been on improving the energy efficiency of our network which represents over 90% of total energy consumption. In 2014, our consumption of grid power for our network increased by 1.1% year on year compared to 2013. Despite customer growth of 8.5%, expansion of 3G coverage by 18%, and the ongoing LTE rollout, network energy consumption on from the grid in 2014 was 1.5% lower compared to 2012. We attribute this to our network modernisation exercise, and expect to see improvements in energy intensity.

Generators to power base stations off the national power grid accounts for 3% of our base stations. In 2014 we optimised an additional 41 generators to reduce diesel consumption. We have seen an increase of 7.8% in diesel consumption due to increased roll out of portable power generators to reach customers living in underserved areas, and post east coast flood recovery of more than 200 base stations.

In 2014, we installed an additional 7 hybrid solar powered sites and increased our solar energy use by 16% year on year. Our 74 solar powered sites accounts for 0.56GWh or less than 1% of our energy used for our network. We will continue to explore potential sites to install and migrate to solar as the technology advance and investment costs decrease.

Building energy efficiency

We have seen a 0.8% year on year increase in our building energy. We attribute this to the increase in head count and longer operational hours during the three month billing system migration exercise. In 2014, we rolled out energy efficiency improvements in our regional operations. We replaced over 700 light fittings with 10w per bulb reduction.

In 2015 we will begin refurbishment of D'house, where majority of our employees are based at. Targeted to meet LEED Commercial Interior Gold Certification, we estimate the refurbishment will help us achieve reduction of 35% in energy and 20% in water use. The certification will require us to recycle 95% of wastes generated, use 30% recycled building material, 30% material produced in the region, and low volatile organic compound products to reduce risk of sick building syndrome.

Case Study

DiGi's Technical Operations Center was the first data center in Malaysia to achieve the provisional Gold Level Certification from the Green Building Index. The design, construction and operations of this data center incorporate a wide range of energy and environmentally-friendly features.

Green features:

- Energy efficiency (target Power Usage Efficiency < 1.6)

- Renewable Energy - solar cells of 35.2KWp for internal usage

- Water efficiency - rain water harvesting capacity with bio-swale tank

- Eco-friendly elements - eco-friendly carpeting, low volatile organic compound (VOC) wall paint, low emissions coated window panels, 'Green' fire suppression system (inert gas used with zero ozone depleting potential)

Energy efficiency initiatives

We will continue to explore opportunities to improve energy efficiency across our operations through investing in innovative energy saving solutions and develop strategic partnerships in pursuit of Internet for all. Since 2011, we have initiated a multi prong strategy to improve energy efficiency across our network and facilities operations.

Mapping energy use: We mapped and analysed power consumption to differentiate and estimate energy used for facilities and network. This provided us with a baseline to develop targeted strategy on how to increase energy efficiency.

Cooling solutions: Since 2011, we have progressively installed hybrid free cooling boxes as default in 944 of our base stations. Hot air generated from equipment in the cabin is extracted by a powerful ventilation system. Air conditioning comes into operation only when cabin temperature reaches a settable threshold.

Malaysia's first Green Data Centre: In 2012, we invested in the nation's first Green Data Centre. Certified Gold by the Green Building Index, the Technical Operations Centre and Mobile Switching Centres have all adopted cold aisle containment systems.

Smart metering: In 2012, installed smart metering to provide more accurate insights into energy consumption patterns across the network to improve energy management.

Network and infrastructure sharing: In 2013, Digi and Celcom signed a network sharing agreement to share sites and 10,000 km of fibre. Up to end 2014, DiGi decommissioned 139 sites and jointly laid over 4,000 km of cables. The sharing of network and infrastructure now extends to three other operators. This cooperation reduces the number of sites and emissions, while expanding our coverage.

Network modernization: In 2013, DiGi completed its network modernisation programme. This involved upgrading of our network equipment that would support business goal of Internet for all, with more energy efficiency equipment.

Carbon emissions

In 2014, our Greenhouse Gas (GHG) emissions increased 6.8% to 134,000 tonnes CO2e. The higher percentage increase compared to GWh consumption is partially attributed to a 6.2% increase in Malaysia's grid electricity emission factor issued by the International Energy Agency.

Our largest GHG emissions are from Scope 2, purchased electricity from grid, which accounts for 84% of total emissions. Scope 1 emission, from our assets, accounts for 15% of our total emission.

Our Scope 1 emission from our network has been increasing over the past three years due to higher roll out portable base stations to reach underserved customers. In 2014, our Scope 1 emission increased 8% as we rolled out more portable sites to hastened recovery of over 200 sites during the east coast floods. We missed our timelines and did not convert any additional off-grid sites to grid power.

Our Scope 3 emission, indirect emissions, accounts for less than 1% of total emission. We track all air travel and mileage of rented vehicles. We have seen a 15% and 12% reduction respectively in line with lower employee headcount. In 2015, we will expand our Scope 3 accountability by gaining an understanding of GHG emissions in our logistics supply chain.

We continue to explore and invest in green technology that supports our business goals and leverage on network infrastructure sharing to reduce GHG emissions. Though we increased use of solar power by 16% in 2014, our 74 hybrid solar powered base stations accounted for less than 1% of network energy consumption.

Addressing Environmental Sustainability

We take a proactive approach to managing potential environmental risks and impacts across our operations. We comply with ISO14001 international environmental management systems across our operations, meet local standards for managing obsolete electrical and electronic equipment, and advocate a greener future amongst our key stakeholders.

Our commitment to environmental sustainability extends to our supply chain as part of the Agreement of Business Conduct. We encourage our suppliers to undertake precautionary approach, promote greater environmental responsibility, and encourage the development and diffusion of environmentally friendly technologies.

Our Initiatives

Adherence to Environmental Standards and Carbon Reporting

DiGi was awarded the Top Performer "Excellence Award" at the inaugural MyCarbon Disclosure Project Awards in recognition for its transparency in carbon disclosure. Organised by MYCarbon, the National Corporate Greenhouse Gas (GHG) Reporting Programme aims to encourage corporate Malaysia to review, account and report GHGs emissions adapted from the internationally recognised GHG Protocol.

DiGi has reported its GHG emissions for over a decade using the GHG protocol. In 2001, DiGi was ranked #1 in Malaysia, and in 2013 as a Climate Disclosure Leader in Asia by Carbon Disclosure Project (CDP). Since 2013, DiGi's carbon reporting to the CDP has been reported as part Telenor Group's submission.

Managing Obsolete Electrical and Electronic Equipment

Electronic waste represents a substantial portion of obsolete electrical and electronic equipment from our network. Since 2012, a formal process to facilitate the disposal of obsolete network equipment, in accordance to environmental and safety standards have been implemented. The process ensures that all obsolete equipment is properly dismantled, stored for re-use as spare parts, refurbished and sold, or scrapped according to environmental and safety requirements.

In 2014, with the completion of the network modernisation programme, our e-waste collection doubled to 3.3 tonnes. We recycled over 94% of the obsolete equipment collected and raised RM6 million in the process. We are cognizant that there is obsolete equipment that is still in the field that needs to be accounted. We continue to communicate with our field force team to ensure that all obsolete equipment is collected and disposed in a safe and proper manner.
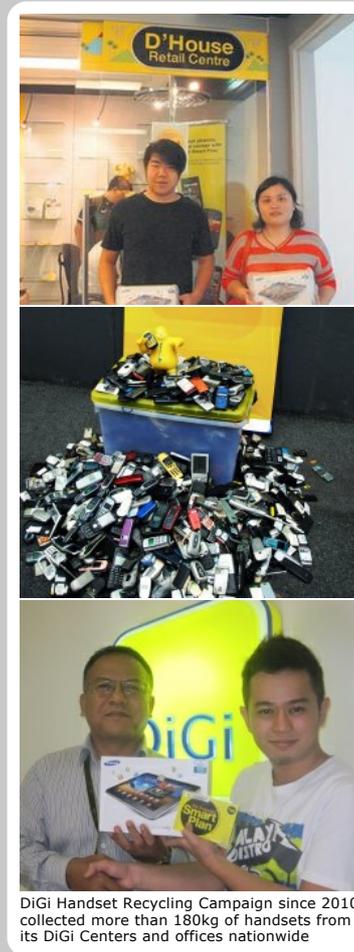
DiGi Handset Recycling Campaign since 2010 collected more than 180kg of handsets from its DiGi Centers and offices nationwide

Advocacy and Awareness

Addressing climate change and environmental awareness requires a multi-party approach. We continue to work and support industry and non-governmental organisation partners to pilot projects and raise awareness.

Digi is a member of the Malaysian Technical Standards Forum Berhad, an industry initiative by Malaysian Communications and Multimedia Commission. As chair of the sub-working group promoting green ICT, we work with industry partners to promote awareness, trail new solutions, conduct proof of concept, and develop industry standards.

In 2014, we sponsored 200 of our customers to be part of the global 'Earth Hour' movement in partnership with WWF Malaysia. We will continue to explore innovative solutions mobile connectivity can help to raise greater environmental awareness and initiatives with partners.

In 2013, for Earth Hour, DiGi partnered with WWF Malaysia to advocate energy conservation through a 'Live Green'pledge, reaching over 50,000 Malaysians across 17 higher education institutions nationwide.